REMARKS

Claims 1-2 and 4-17 are pending in the application. Applicant amends claims 1, 5-6, and 12 and presents claims 1-2 and 4-17 for reconsideration and allowance.

Discussion of Objections to the Claims

Claims 5, 6, and 12 were objected to for informalities. Applicant amends claims 5 and 6 to depend from claim 4, rather than from canceled claim 3. The change in the base claim is believed to overcome the lack of antecedent basis for the term "control inputs" appearing in claim 5.

Applicant amends claim 5 to change the wording to "disabling said control inputs by setting said outputs of said buffers" as suggested by the Examiner. Applicant amends claim 12 in a similar manner to change the phrase "disabling said control inputs *sets* said outputs of said plurality of buffers to a high impedance state" to "disabling said control inputs *includes setting* said outputs of said plurality of buffers to a high impedance state." The amended claim 12 is believed to be in accordance with Examiner's request to make the phrase easier to understand. Applicant respectfully requests withdrawal of the objections to the claims in light of the amendments.

Discussion of Rejections Under 35 USC §103(a)

Claims 1, 2, and 4-17 were rejected under 35 USC §103(a) as allegedly unpatentable over U.S. Patent No. 6,195,335 to Calvignac et al. (hereinafter Calvignac) in view of U.S. Patent No. 5,933,449 to Meyer. The Examiner contends that the combination of the references teaches all of the claimed elements.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art reference, or references when combined, must teach or suggest all of the claim limitations.

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Applicant respectfully contends that the references, either alone or in combination, fail to teach or suggest all claim limitations. Further, Applicant contends that there is no motivation to combine the references in the manner suggested by the Examiner.

Claim 1 includes "a controller, operable to control said cross-bar switch to interconnect any two of said plurality of bi-directional data ports by selectively enabling a control output associated with the interconnection of the two of said plurality of bi-directional data ports." This configuration is illustrated in Figure 4 of Applicant's application and is described in associated text as well as generally throughout the specification. As shown in Figure 4 and described in the accompanying text, there is a control output (A, B, or C) associated with the interconnection of two of the plurality of bi-directional data ports. Control output A is associated with interconnecting the data ports coupling the PDA and CRDL, control output B is associated with interconnecting the data ports coupling the PDA and MSM, and control output C is associated with interconnecting the data ports coupling the MSM and CRDL. One control output of the controller is associated with each of the interconnection possibilities.

In contrast, neither Calvignac nor Meyer, whether alone or in combination, describes or suggests a control output associated with interconnection of two of the data ports. That is, neither Calvignac nor Meyer describes or suggests a controller output that is associated with a particular interconnection pair.

Calvignac describes a data switch that requires numerous control settings to be set to enable an interconnection. For example, to interconnect input line 230 to output line 240, gates 200 and 210 must be enabled and the crosspoint buffer 220 must receive the input from gate 200. Thus, in Calvignac, at least two control lines corresponding to the input gate 200 and the output gate 210 need to be independently controlled just to enable a single crosspoint. Calvignac does not describe these two control lines as being commonly controlled.

As conceded by the Examiner, Calvignac fails to disclose bi-directional data ports. Each crosspoint switch in Calvignac only couples a single input data line to an output. Thus, in order to couple bi-directional signals using the data switch described in Calvignac, at least one other data switch, with its corresponding controller and control lines, is required.

Meyer also fails to disclose "a controller, operable to control said cross-bar switch to interconnect any two of said plurality of bi-directional data ports by selectively enabling a control output associated with the interconnection of the two of said plurality of bi-directional data

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ports." Instead, in Meyer, the switch controller 38 needs to provide signals to the particular switcher ports 20a-20n and crosspoints 34ab necessary to couple the desired machines 10a-10n. Thus, to enable a particular interconnection of two ports in Meyer, the controller needs to independently enable the appropriate switcher ports corresponding to the two machines as well as the crosspoint switches interconnecting the two machines. For example, to connect machine 10a to machine 10j in Figure 1 of Meyer, the switch controller would need to separately control the switcher ports 20a and 20j and individually activate crosspoints 34aj and 34ja.

Furthermore, although Applicant contends that not every claim limitation is described, even if Calvignac and Meyer were to disclose each and every claimed feature, there is no motivation to combine the teachings or to modify the teachings of Calvignac or Meyer in the manner suggested by the Examiner. The Examiner states that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine or modify the teachings of Calvignac and Meyer to enable an ensemble of machines to be interconnected in a flexible fashion. However, Meyer already enables such a connection. Meyer states: "The preferred application of the apparatus shown in FIGS. 1 and 2 is in a television post production facility, in which the switcher is used to provide flexible interconnection of machines such as editors and VTRs." Because Meyer already describes machines interconnected in a flexible fashion, one of ordinary skill in the art would not look to modify the design by incorporating some other switch. There is no motivation for one of ordinary skill in the art to modify the data switch of Calvignac, when Meyer already provides a solution to the need expressed by the Examiner. Therefore, Applicant respectfully requests reconsideration and allowance of claim 1.

Claim 4 similarly describes an apparatus having three interfaces and an interface controller with three control outputs. The interface controller can control the interconnection of any two of the three interfaces through individual enablement of any of the three control outputs. Each control output is associated with a particular interconnection pair (by being coupled to the corresponding buffer pairs).

Claim 11 also includes n interfaces and an interface controller having $_nC_2$ control outputs. "[E]ach one of said plurality of control outputs is coupled to said control inputs of the two of said plurality of buffers that couples a unique pair of the $(_nC_2)$ combinations of said interface inputs and outputs." Neither Calvignac nor Meyer disclose two buffers that couples a *unique pair of interface inputs and outputs*, and thus do not disclose a control output from an interface

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controller coupled to control inputs of the two buffers. Applicant thus respectfully requests reconsideration and allowance of claims 4 and 11 for at least the same reasons as provided above in relation to claim 1.

Discussion of Dependent Claims

Claims 2, 5-10, and 12-17 depend, either directly or indirectly, from one of claims 1, 4 and 12 and are believed to be allowable at least for the reason that they depend from an allowable base claim. Reconsideration and allowance of the dependent claims is respectfully requested.

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(AMENDMENTFORM.VER1.0-04/30/04)

Appl. No. 09/974,919
Amdt. dated March 17, 2005
Reply to Office Action of 10/20/04

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-845-5235.

Respectfully submitted,

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